

**PHILIPS**

**Lighting**



# Fluorescent lighting for cold environments

## MASTER TL-D Xtra Polar

The MASTER TL-D Xtra Polar lamp offers the highest light output at lower temperatures because of the insulation that is created by putting a TL-D (T8) lamp into a T12 tube. The lamp is especially suitable for applications in cold environments where relamping is costly and complex.

### Benefits

- High lighting level in low-ambient-temperature applications compared with other fluorescent tubes
- Sharp reduction in maintenance costs due to high reliability and long lifetime
- Supports end-user sustainability programs (low mercury level and low waste due to long lifetime)

### Features

- Improved light output in low ambient temperatures
- Peak luminous flux for 58 W is reached at an ambient temperature of -5 °C around the lamp
- The same reliable, long-lifetime performance as regular MASTER TL-D Xtra

### Application

- All applications at lower ambient temperatures (below 10 °C)
- Indoor: cold stores and other refrigerated areas
- Outdoor: petrol stations, car parks, shipping docks, petrochemical plants, sign lighting, tunnels

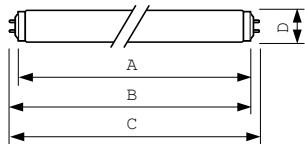
# MASTER TL-D Xtra Polar

## Versions



G13, T10/T12

## Dimensional drawing



| Product               | D (max) | A (max)   | B (max)   | B (min)   | C (max)   |
|-----------------------|---------|-----------|-----------|-----------|-----------|
| MASTER TL-D Xtra      | 40.5 mm | 589.8 mm  | 596.9 mm  | 594.5 mm  | 604.0 mm  |
| Polar 18W/840 T12 SLV |         |           |           |           |           |
| MASTER TL-D Xtra      | 40.5 mm | 1500.0 mm | 1507.1 mm | 1504.7 mm | 1514.2 mm |
| Polar 58W/840 T12 SLV |         |           |           |           |           |
| MASTER TL-D Xtra      | 40.5 mm | 1199.4 mm | 1206.5 mm | 1204.1 mm | 1213.6 mm |
| Polar 36W/840 T12 SLV |         |           |           |           |           |

# MASTER TL-D Xtra Polar

| Approval and Application           |                 |
|------------------------------------|-----------------|
| Energy Efficiency Label (EEL)      | A               |
| Mercury (Hg) Content (Nom)         | 3.0 mg          |
| Controls and Dimming               |                 |
| Dimmable                           | Yes             |
| General Information                |                 |
| Cap-Base                           | G13             |
| Life To 50% Failures Preheat (Nom) | 55000 h         |
| Life To 10% Failures (Nom)         | 30000 h         |
| Life To 50% Failures (Nom)         | 36000 h         |
| LSF 12000 h Rated                  | 99 %            |
| LSF 16000 h Rated                  | 99 %            |
| LSF 2000 h Rated                   | 100 %           |
| LSF 20000 h Rated                  | 99 %            |
| LSF 4000 h Rated                   | 99 %            |
| LSF 6000 h Rated                   | 99 %            |
| LSF 8000 h Rated                   | 99 %            |
| Light Technical                    |                 |
| Color Code                         | 840             |
| Color Designation                  | Cool White (CW) |
| Correlated Color Temperature (Nom) | 4000 K          |
| Color Rendering Index (Nom)        | 85              |
| LLMF 12000 h Rated                 | 92 %            |
| LLMF 16000 h Rated                 | 91 %            |
| LLMF 2000 h Rated                  | 96 %            |
| LLMF 20000 h Rated                 | 90 %            |
| LLMF 4000 h Rated                  | 95 %            |
| LLMF 6000 h Rated                  | 94 %            |
| LLMF 8000 h Rated                  | 93 %            |
| Mechanical and Housing             |                 |
| Bulb Shape                         | T12             |

| Approval and Application |  | Energy Consumption kWh/1000 h |
|--------------------------|--|-------------------------------|
| Order Code               | Full Product Name                      | Energy Consumption kWh/1000 h |
| 927980684075             | MASTER TL-D Xtra Polar 18W/840 T12 SLV | 21 kWh                        |
| 927982684075             | MASTER TL-D Xtra Polar 36W/840 T12 SLV | 41 kWh                        |
| 927983684075             | MASTER TL-D Xtra Polar 58W/840 T12 SLV | 66 kWh                        |

## Operating and Electrical

| Order Code   | Full Product Name                      | Lamp Current<br>(Nom) | Power (Rated)<br>(Nom) |
|--------------|--|-----------------------|------------------------|
| 927980684075 | MASTER TL-D Xtra Polar 18W/840 T12 SLV | 0.378 A               | 17.0 W                 |
| 927982684075 | MASTER TL-D Xtra Polar 36W/840 T12 SLV | 0.453 A               | 35.0 W                 |

| Order Code   | Full Product Name                      | Lamp Current<br>(Nom) | Power (Rated)<br>(Nom) |
|--------------|--|-----------------------|------------------------|
| 927983684075 | MASTER TL-D Xtra Polar 58W/840 T12 SLV | 0.715 A               | 58 W                   |

## Light Technical

| Order Code   | Full Product Name                      | Luminous                  |                        |                                |
|--------------|--|---------------------------|------------------------|--------------------------------|
|              |  | Efficacy (rated)<br>(Nom) | Luminous Flux<br>(Nom) | Luminous Flux<br>(Rated) (Nom) |
| 927980684075 | MASTER TL-D Xtra Polar 18W/840 T12 SLV | 76 lm/W                   | 1350 lm                | 1350 lm                        |
| 927982684075 | MASTER TL-D Xtra Polar 36W/840 T12 SLV | 91 lm/W                   | 3350 lm                | 3350 lm                        |

| Order Code   | Full Product Name                      | Luminous                  |                        |                                |
|--------------|--|---------------------------|------------------------|--------------------------------|
|              |  | Efficacy (rated)<br>(Nom) | Luminous Flux<br>(Nom) | Luminous Flux<br>(Rated) (Nom) |
| 927983684075 | MASTER TL-D Xtra Polar 58W/840 T12 SLV | 83 lm/W                   | 4750 lm                | 4750 lm                        |

# MASTER TL-D Xtra Polar

## Temperature

| Order Code   | Full Product Name                      | Design Temperature (Nom) | Order Code   | Full Product Name                      | Design Temperature (Nom) |
|--------------|--|--------------------------|--------------|--|--------------------------|
| 927980684075 | MASTER TL-D Xtra Polar 18W/840 T12 SLV | 15 °C                    | 927983684075 | MASTER TL-D Xtra Polar 58W/840 T12 SLV | -5 °C                    |
| 927982684075 | MASTER TL-D Xtra Polar 36W/840 T12 SLV | 5 °C                     |              |  |                          |

